In the Claims

This listing of claims will replace all prior versions and listings of claims in this application.

1 (currently amended). A method for assessing whether a test sample activates the intestinal tract immune system, comprising the steps of:

(a) contacting a test sample with [[a]] an isolated cell expressing [[an]] a naturally-occurring mammalian intestinal tract tissue-expressed Toll-like receptor; and

(b) measuring activity of the Toll-like receptor using signal transduction in the cell as an indicator,

wherein the test sample is judged to be activating the intestinal tract immune system if the activity of the Toll-like receptor is increased as compared to activity of the Toll-like receptor in a cell not contacted with the test sample.

2 (previously presented). The method, according to claim 1, wherein said method is used to screen for a sample that activates the intestinal tract immune system, wherein the method comprises the steps of:

(a) assessing whether a plurality of test samples activate the intestinal tract immune system by the assessment method of claim 1; and

(b) selecting from the plurality of test samples those assessed to activate the intestinal tract immune system.

3 (original). A method for producing a pharmaceutical composition that activates the intestinal tract immune system, comprising the steps of claim 2, and a further step of mixing the sample assessed to activate the intestinal tract immune system with a pharmaceutically acceptable carrier.

4 (currently amended). The method, according to claim 1, wherein said method is used to assess whether a test microorganism activates the intestinal tract immune system, comprising the steps of:

(a) preparing an extract from a test microorganism;

(b) contacting the extract with [[a]] an isolated cell expressing [[an]] a naturally-occurring mammalian intestinal tract tissue-expressed Toll-like receptor; and

(c) measuring activity of the Toll-like receptor using signal transduction in the cell as an indicator,

wherein the test microorganism is judged to be activating the intestinal tract immune system if the activity of the Toll-like receptor is increased as compared to activity of the Toll-like receptor in a cell not contacted with the extract.

5 (currently amended). The method, according to claim 4, wherein said method is used to screen for ~~a microorganism that activates~~ microorganisms that activate the intestinal tract immune system, comprising the steps of:

(a) assessing whether a plurality of test microorganisms activate the intestinal tract immune system by the assessment method of claim 4; and

(b) selecting from the plurality of test microorganisms ~~those~~ one or more microorganisms that are assessed to activate the intestinal tract immune system.

6 (currently amended). A method for producing a food composition that activates the intestinal tract immune system, comprising the steps of claim 5, and ~~a further step of~~ then mixing ~~the microorganism~~ one or more microorganisms selected in part (b) of claim 5 ~~assessed to activate the intestinal tract immune system~~ with a dietarily acceptable carrier.

7 (currently amended). The method of claim 6, wherein the ~~microorganism is a~~ one or more microorganisms are lactic acid ~~bacterium~~bacteria.

8-11 (canceled).

12 (previously presented). The method of claim 1, wherein the intestinal tract tissue is intestinal lymphoid tissue.

13 (original). The method of claim 12, wherein the intestinal lymphoid tissue is Peyer's patch or intestinal lymph node.

14 (previously presented). The method of claim 1, wherein the Toll-like receptor is derived from swine.

15 (previously presented). The method of claim 1, wherein the Toll-like receptor is Toll-like receptor 9.

16-21 (cancelled).

22 (new). The method, according to claim 6, wherein the dietarily acceptable carrier is a dairy product.

23 (new). The method, according to claim 6, wherein the carrier is acceptable for human consumption.